

Amendments to the Abstract:

Please replace the originally filed Abstract with the following rewritten Abstract:

A mixer apparatus for use with a vessel centered about a longitudinal axis is disclosed. The mixer has a ~~tubular~~ blade which: defines a central head axis; has a first end and a second end ~~spaced from the first end along the head axis; and tapers from the first end to the second end.~~ The ~~inner surface of the blade and the~~ second end defines an inside blade diameter "ID" and ~~the outer surface of the blade and the~~ first end defines an outer blade diameter "OD". The blade is positioned within and coaxial to the vessel. A scotch yoke, operatively connected to the blade by a shaft, effects reciprocating longitudinal movement of the blade through a stroke "S", with a duration "T" for each cycle, wherein $175 \leq 0.36 \times OD^2/ID^2 \times S/T \leq 250$ when OD, ID and S are expressed in inches, and T is expressed in minutes.